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ABSTRACT

This report describes and evaluates the Chapter 1 Early Childhood Education Program used in three classrooms in the 1988-89 school year at Kenton School in North Portland (Oregon). Chapter 1 is the "Introduction." Chapter 2, "Description of the Program," includes the following topics: (1) organization of the program; (2) characteristics of the student population; (3) recruitment and attendance; (4) facilities and learning materials; (5) Daily Educational Activities; and (6) project costs. Chapter 3, "Evaluation Methodology and Findings," includes the following developmental topics: (1) language skills; (2) numerical concepts; (3) small motor skills; (4) social development; (5) art and music; (6) large motor skills; and (7) personal welfare. Chapter 4 is "Observations and Comments." Chapter 5 is "Summary and Conclusions." Also included are the evaluation form used in the program, and the preschool student achievement form. Two references are appended. (JS)

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1988-89
Evaluation
Report

ECIA, CHAPTER 1 EARLY CHILDHOOD EDUCATION PROGRAM

IN THE PORTLAND PUBLIC SCHOOLS

Research and Evaluation Dept.
Portland Public Schools
Portland, Oregon
Walter E. Hathaway, Director

Kan Yagi

August, 1989

UD 027 730

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ADMINISTRATIVE SUMMARY

ECIA, CHAPTER 1 EARLY CHILDHOOD EDUCATION PROGRAM

1988-89

The Chapter 1 Early Childhood Education Program is one of three arrangements in the District to offer education for children of preschool age. The other two are the Early Childhood Education Centers and Head Start. Together the three programs enrolled nearly 1500 students in 1988-89. Although there are differences among programs, due mainly to different regulations and requirements, day to day classroom activities and operations appear to be very similar.

The Chapter 1 program included three classrooms located at Kenton School. Each classroom held two sessions of two and a half hours each day--a total of six classes. The capacity of the program was 120 students, 20 in each class. Each classroom was staffed with a certified teacher and an aide. In addition to the support of the building principal and program coordinator, the program had the technical support of an education specialist. During the 1988-89 school year, a total of 122 students was served with a budget of $223,857--a cost of $1865 per student for a full school year. All students resided in the area served by North Portland schools.

Two classrooms were housed in portable buildings adjacent to the main building; the third was in the main building. Each classroom had a large area with tables and chairs for seat work. Another large, carpeted area was used for whole group activities. Smaller areas were arranged to accommodate individual or small group activities such as a library, playhouse, sand table, and a variety of games and puzzles. Teachers had access to various audio-visual equipment and main library. Weather permitting, children were taken outdoors to participate in various large motor activities, e.g., climbing, playing ball.

The curriculum featured skills in the areas of language, math, small and large motor, art and music, and personal and social development. Teachers arranged instructional activities and prepared nearly all of the consumable materials used in the classroom. Program activities alternated between large and small group activities throughout the day. Over the years, the schedule and program activities have been surprisingly similar from teacher to teacher and from year to year despite the number of different teachers. However, current teachers and students tend to engage more in developmentally appropriate practices and educationally worthwhile activities. Although the students are often free to move around the classroom, they tend to move less frequently as they adjust to engaging in educationally worthwhile activities for longer periods.

A rating form containing a large sample of the skills taught in seven skill areas was used to measure student achievement. Specific skills were similar to those featured in the Head Start curriculum. Norms against which to compare the achievements of preschool students are not available, so data for program students have been accumulated over the years for the purpose of comparison. Ratings of student achievement are made subjectively; therefore, interpretations have been based on trends over the years rather than annual achievements. Although instruction has tended to focus more on child development rather than the mastery of each skill, results in recent years show more students have achieved mastery of more skills than students in previous years.

The fact that the preschool classes appeared to be quite naturally and reliably replicated should be noted. Structural elements of the preschool programs such as the curriculum and daily schedule appeared to guide teachers in somewhat the same manner as elements of the Montessori method do. Montessori teachers are trained and disciplined to react in particular ways within a prescribed environment of learning materials. There is a reason for using the prescribed learning materials and teachers are trained to interact with students accordingly. Chapter 1 teachers now appear to deal with students more uniformly, consistently, and appropriately.

Return to: Oregon Department of Education
Chapter 1 Program
700 Pringle Parkway SE
Salem, OR 97310-0290

DUE DATE: May 19, 1989

END OF YEAR REPORT
Chapter 1, ECIA Report for 1988-89 School Year

DISTRICT IDENTIFICATION

District Name: Portland School District #1

District Address: 501 N. Dixon St., Portland, OR 97227

County Multnomah

CONTACT PERSON COMPLETING REPORT: Kan Yagi

Phone Number of Contact Person: 249 - 2000 X335

CHAPTER 1, ECIA, PARTICIPATION INFORMATION

1. Term of Program: X School Year Program or Summer School Program
Summer School Programs need NOT COMPLETE NOW. Submit Summer School Information by August 1, 1990.

2. Number (unduplicated count) of regular-term Chapter 1 students.

GRADE	PUBLIC		NONPUBLIC		N & D
	Female	Male	Female	Male	
Pre K------	69	53			
K----------					
1----------					
2----------					
3----------					
4----------					
5----------					
6----------					
7----------					
8----------					
9----------					
10---------					
11---------					
12---------					
Total	69	53			

3. Estimated district enrollment 53,000

(Continued on reverse side)

4. Number of unduplicated students using services by status.

GRADE	PUBLIC			NONPUBLIC		
	Carried Over from Last Year	New to Program	Exited Students at Grade Level	Carried Over from Last Year	New to Program	Exited Students at Grade Level
Pre K		133				
K						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
TOTAL		133				

5. Total number (unduplicated count) of Chapter 1 students by racial/ethnic group and by type of school.

RACIAL/ETHNIC GROUP	Enrollment in CHAPTER 1	
	Public	Nonpublic
AMERICAN INDIAN OR ALASKAN NATIVE	7	
ASIAN OR PACIFIC ISLANDER	9	
BLACK, NOT OF HISPANIC ORIGIN	19	
WHITE, NOT OF HISPANIC ORIGIN	81	
HISPANIC	6	
RUSSIAN		
TOTAL UNDUPLICATED COUNT	122	

6. FTE of staff employed in your Chapter 1 program and paid with Chapter 1 funds reported in full-time equivalents by job classification. (regular term only)

JOB CLASSIFICATION	FULL-TIME EQUIVALENT
SUPERVISORY STAFF	
TEACHERS	3.0
TEACHER AIDES	3.0
CURRICULUM SPECIALISTS	
SUPPORT SERVICES STAFF	.25
CLERICAL STAFF	1.0
OTHERS (Evaluation Specialist) . . .	.2

NOTE: 1.0 is full-time and report to the nearest tenth.

Form 581-2332 (Rev. 3/89)

7. Indicate the estimated expenditures and sources of funds used to support your Chapter 1 Program.

CHAPTER 1 FUNDS . . . . . $ 223,857
DISTRICT FUNDS . . . . . $ _____
OTHER FUNDS (Specify) _____ $ _____

TOTAL FUNDS . . . . . $ _____

8. Give the Number of Public School Attendance Areas:

a. Eligible for Chapter 1 Services During the Regular Term NA

b. Receiving Chapter 1 Services During the Regular Term NA

9. Give the Number (duplicated count) of Chapter 1 students during the regular term by Type of Services, Public/Nonpublic Institutional Designation and Gender.

SERVICE AREA	Public	Nonpublic	Local Neglected or Delinquent
Reading	122		
Language Arts	122		
Mathematics	122		
SUPPORTING Attendance, social work, guidance, psychology, etc.			

10. Give the number of students that are eligible to receive Chapter 1 assistance in each of the following subjects (duplicated count). This item is optional in 89 bu will be required in 90.

Reading NA

Language Arts NA

Mathematics NA

11. Give the number of students that are eligible to receive Chapter 1 assistance (unduplicated count). This item is optional in 89 but will be required in 90.

NA

Form 581-2332 (Rev. 3/89)

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Return to: Chapter 1 Program, Oregon Department of Education, 700 Pringle Parkway SE
Salem, OR 97310, Phone: 378-3606

C. CHAPTER 1 EARLY CHILDHOOD EVALUATION FORM

District Name Portland School District School Name Chapter 1 Early Childhool Educ.

Grade: (Check One)
- x Pre-Kdg.
- ____ Kdg.
- ____ 1st Grade

Subject Matter: (Check one)
- x Reading
- x Language Arts
- x Math
- x Other (specify)

Small & large motor skills, social development, art, music, & persona welf

Length of Program: 32 weeks

Pretest: Chapter 1 ECE achievement rating form (Name of Test) | 1986 (Edition) | (Portland developed) (Form) (Level)

Posttest: Same (Name of Test) | ____ (Edition) | ____ (Form) | ____ (Level)

Pretest Date: October 19 Posttest Date: April 26

Portion of Test administered:
- ____ Subtest only
- X Total test

Type of score reported:
- X Raw
- ____ Standard

Title of Subtest: ____

Student Information		Pretest Score	Posttest Score
	Student Code #		
1.	100	0	38
2.	101	0	44
3.	102	0	47
4.	103	0	37
5.	104	2	40
6.	105	3	32
7.	106	0	55
8.	107	0	36
9.	108	0	16
10.	109	0	31
11.	110	0	36
12.	111	0	48
13.	112	0	39
14.	113	0	44
15.	114	0	21
16.	115	0	40
17.	116	1	30
18.	117	0	31
19.	118	0	15
20.	119	0	27
21.	120	0	32
22.	121	0	26
23.	122	0	42
24.	123	1	46
25.	124	-	28
	Totals:		
	Average Score:		

Form 581-2315 (Rev 9/88) [FED828/dc/dsm]

Student Information Student Code #	Pretest Score Complete Mastery	Posttest Score Complete Mastery
125	0	17
126	0	40
127	0	51
128	0	42
129	0	23
130	0	23
131	0	41
132	0	32
133	0	26
134	0	33
135	0	36
136	0	42
137	0	19
138	0	29
200	-	5
201	-	6
202	0	22
203	3	30
204	1	26
205	0	8
206	0	51
207	0	22
208	0	28
209	-	27
210	1	27
211	0	6
212	10	46
213	0	41
214	1	40
215	11	39
216	0	9
217	-	12
218	0	21
219	-	33
220	3	12
221	3	30
222	0	42
223	1	40
224	0	35
225	0	28
226	2	43
227	0	16
228	0	7
229	0	13
230	0	13
231	5	34
232	1	18
233	0	16
300	1	45
301	1	37
302	1	47
303	0	18
304	1	29
305	10	60
306	-	11
307	3	43
308	0	5
309	2	27
310	4	54
311	5	58

Student Information Student Code #	Pretest Score Complete Mastery	Posttest Score Complete Mastery
312	1	53
313	1	27
314	2	33
315	2	47
316	0	18
317	2	30
318	-	31
319	0	48
320	-	37
321	3	48
322	1	49
323	0	40
324	0	30
325	4	52
326	2	30
327	10	58
328	1	54
329	0	16
330	0	32
331	0	25
332	9	51
333	5	54
334	3	57
335	3	42
336	0	36

Chapter 1 Early Childhood Education Program
Year-End Evaluation Report
August 1989

Kan Yagi
Evaluation Specialist

Evaluation Department
Portland Public Schools
Portland, Oregon

2082E

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INTRODUCTION

This year-end evaluation report concludes the seventeenth year of operation of the Chapter 1 Early Childhood Education (Preschool)* Program in Portland Public Schools. The report is prepared as a narrative supplement to the preceding statistical report forms used by Chapter 1 ECIA evaluation and is organized into major sections: description of the program, evaluation methodology and findings, observations and comments, summary and conclusions. The purpose of the Prescnool program is to provide educationally and economically disadvantaged children the experiences needed to ameliorate the disadvantages resulting from their circumstances.

DESCRIPTION OF THE PROGRAM

Information for the program description was obtained by observations of classrooms, reviews of program documents and materials, and discussions with the staff. The description includes the following: (a) organization of the program, (b) characteristics of the student population, (c) recruitment and attendance, (d) facilities and learning materials, (e) daily educational activities and (f) project costs.

Organization of the Program

The Chapter 1 Prescnool Program consisted of three classrooms which were again located at Kenton School. All classrooms held two sessions of 2-1/2 hours daily - a total of six classes. The capacity of the program was 120 children in classes of 20 each.

Each classroom was staffed with a certified teacher and an aide. All three teachers were in the program last year. The principal at the school provided on-site day-to-day supervision of the classrooms and otherwise treated them

*The term, preschool, will be used here to identify the program and students in prekindergarten. The term, early childhood education, has sometimes been used in other studies to include kindergarten and other primary grades.

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like any others in the building. Evaluation and other administrative functions for the program were handled through the Headstart/Chapter 1 Program Coordinator's office.

Characteristics of the Student Population

Table 1 shows the geo-cultural background of the 122 students enrolled during the 1988-89 school year. Almost two-thirds were European American (66 percent); 16 percent were African American, and the remaining were about equally divided among Native American, Asian American, and Hispanic American. The 28 percent minority enrollment is only slightly higher than the 27 percent minority enrollment for the entire district. Virtually all students resided in the North Portland area which is predominantly European American.

TABLE 1

Geo-cultural Composition of Student Population

Geo-cultural Group	N	Percent
European American	81	66
African American	19	16
Hispanic American	6	5
Asian American	9	7
Native American	7	6
Total	122	100

Recruitment and Attendance

Eligibility for participation in the program is based on age, residency within the boundaries of Chapter 1 school service areas, family income, number of parents and siblings, and an appraisal of the student as educationally disadvantaged.

Enrollment of students in the Chapter 1 preschool program is voluntary. Parents who seek to enroll students are interviewed to determine the reasons for enrolling their children, family's educational history, children's medical history and factors which might influence the children's educational

achievements positively, as well as negatively. Accommodations are usually made during the year for children who were attending preschool programs in other cities or states and seek to become enrolled in the Portland schools.

Knowledge of the program is usually gained through word of mouth with some students referred by schools and human service agencies. The program as well as other preschool programs in the District have become so well-known that by the end of a school year, enrollment for the next year is virtually at capacity. A waiting list of eligible students is maintained so vacancies are filled without significant delay.

Student attendance each month is shown in Table 2 for all three classrooms combined. The percent student attendance is determined by dividing the total days present by the total days membership. The resulting figure represents the percent of students in attendance on a typical school day. The daily average was 82 percent, which is noticeably lower than the 91 percent obtained last year and six percent lower than the averages of the five earlier years. The average for kindergarten children for 1988-89 was 91 percent or the same as the previous year; the average for all District students was 92 percent. Last year it was noted that over the last ten years when attendance data were first reported for the preschool program, average attendance had risen from the low 80's to the high 80's. The reason for the lower attendance for 1988-89 is unknown.

Individual student records for classes over the previous six years indicated that each year 25 to 30 students (20 to 25 percent) were absent from school 30 days or more each year -- about one day per week or more. Because attendance for the year was not as high as it was in previous years, again frequencies of absences were tabulated for individual students. These tabulations for the 1988-89 school year showed over a third (38 percent) was absent over 30 days, nearly a quarter (22 percent) missed 40 days or more, more than one day a week. Comparable data for individual students in the District are not available. The point here is not to say that the absentee rate is too high, but to emphasize the importance of attending school regularly and developing

the habit of regular attendance. Responsibility for attending school is most likely associated with responsibility for going to work regularly as well as with many other forms of accountability behaviors.

TABLE 2

Percent Student Attendance

Month	Percent
September	92
October	84
November	81
December	83
January	76
February	79
March	81
April	85
May	81
June	82

Facilities and Learning Materials

Each classroom was arranged with a large area of tables and chairs for seatwork. Another large, carpeted area was used for whole group activities, e.g., roll call, story time, sharing, music. Smaller areas were arranged to accommodate individual or small group activities such as a library, playhouse, sandtable, listening station, and a variety of games and puzzles. Each room had a record player and other audio-visual equipment was shared within the school.

Arrangements were made for students to go to the library once a week. There they listened to a story read by the librarian, browsed, and selected books to be taken back to their rooms for the week. Regular use of books was common in every classroom. Children were often encouraged to look at books as an alternative for free play or as a fill-in activity.

Weather permitting, children were taken outdoors where they participated in large motor skills development, e.g., climbing, skipping, hopping, galloping, and in various games where the ability to follow directions and social skills were involved. Available playground equipment, painted lines, and other objects were used in these experiences.

Teachers and aides showed considerable ingenuity in designing activities and the quantities of consumable seat work material being used daily. To add to the variety, students often grew plants and participated in other kinds of science-like projects. In general, the materials and equipment appeared sufficient and appropriate to facilitate meeting the instructional goals as shown on the achievement form (Appendix A).

Daily Educational Activities

Classroom arrangements and activities in the classroom tend to be similar for all teachers. Surprisingly, they have remained much the same each year even though there have been 15 to 20 different teachers for the preschool classes over the last ten years. Each session usually begins with a large group activity involving roll call; identification of the day, date, month, and year; and a determination of the kind of weather outside. The group activity is usually followed by small group seat work of some kind, e.g., coloring, cutting, pasting, that is closely identified with the achievement goals found on the achievement record form. Seat work usually requires close attention to detail, and is teacher directed with individual assistance provided. Another large group activity usually follows, e.g., music/record activity, story time, outdoor play. The outdoor play is often followed by group "sharing" and preparations to end the day. Due to budget constraints, snacks served in previous years were discontinued. Free or guided free time is usually

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permitted when part of the students are involved in small group activity or when they have finished their small group assignment and are marking time to go to the next activity. The design of each activity is largely at the discretion of each teacher who inserts many variations.

Once a week students go to the library to hear a story told or read by the librarian and to exchange their books. The preschool classes also enjoy field trips arranged at opportune times during the year, e.g., Halloween. Throughout the year, students participate in activities of the whole school such as Christmas programs and special assemblies.

It is important to note that the curricula, activities, and the daily schedules of the classrooms have remained quite similar each year even though different teachers have been involved. With these similarities, it seemed reasonable to accumulate and compare data from year to year.

Although the curricula, goals, classroom settings and daily activities have remained much the same for all teachers each year, there were differences among teachers in the instructional strategies they employed in their classrooms. These differences were not intentional and intended to achieve particular purposes; they were merely a reflection of the personal characteristics of the teachers. The extent to which student achievements of instructional goals were affected by teacher practices or characteristics was not a part of the evaluation.

Project Costs

The budget for the 1988-89 school year was $223,857, the same as the previous year. The major cost item, of course, was salaries and fringe benefits of personnel. An estimate of the cost-per-pupil derived by dividing the total budget by the capacity of the program (120 students) was again, about $1,850.

EVALUATION METHODOLOGY AND FINDINGS

The curricula, learning activities, daily schedules of the classrooms and even instruction appear to have remained quite similar each year even though there have been a number of different teachers involved. The similarity is an important concern because it allows comparisons of achievement across the years. The purpose of the comparisons is to determine if there were gross differences in outcomes possibly as a result of instructional differences.

Over the last few years, the emphasis in early childhood education and the Chapter 1 preschool program as well has begun to shift from skill based instruction to what is now being referred to as "developmentally appropriate practices." The National Association for the Education of Young Children (NAEYC) recently published a book (Bredekamp, 1987) in which various descriptions and illustrations of developmentally appropriate and inappropriate practices for children of different age levels were given. According to the NAEYC definition, academic activities arranged to achieve specific skills, e.g., recitations of letters/sounds, numeration, now appear to be developmentally inappropriate. The reference is almost exclusively to what teachers and learners do, and very little is said about student outcomes. NAEYC states that valid instruments to measure achievement with developmentally appropriate practices are rare, yet one is needed for Chapter 1 preschool evaluation.

In order for a record of student achievement to be most useful, it should not only pertain to the students' current year, but to the next year as well. Preschool should be articulated with kindergarten, and student achievement information in preschool should be useful to kindergarten teachers, particularly for developmentally appropriate instruction. Less than complete mastery of a skill should mean exactly what it says -- that a student who does not demonstrate complete mastery of a skill in a variety of circumstances should have further instruction before proceeding to higher level skills that are dependent on that skill. The preschool achievement record was created with the intention of articulating with kindergarten.

Because Chapter 1 preschool students do not remain togetner and continue tneir education in the same school as kindergarteners do, it seems reasonable to prepare them for the philosophy and practices in whatever kindergarten class tney may find tnemselves. All kindergarten classes do not uniformly follow tne practices advocated in tne new movement. For example, some kindergarten children are taugnt as a group and quickly immersed in recognizing and using numbers or naming and using letters of tne alphabet. It is not as though academic skill acnievement and developmentally appropriate practices are necessarily incompatible; rather, they represent different schools of tnought about learning and change is difficult.

Because acceptable outcome measures for developmentally appropriate instruction are not yet available, the achievement record form developed and used tnrough the early years of tne preschool program was modified a few years ago and used for evaluation purposes. One major modification was the inclusion of a number of items intended to measure behavior relevant to school and the classroom. Another modification was a rating scale for evaluating varying degrees of mastery. Teachers are reminded that the form is intended for use in charting student progress, and that it includes some skills that few, if any, students will completely master during the school year. The purpose is to guide instruction, i.e., to determine "which" objectives were reached and not "if" tney were reached.

Modifications were made particularly to accommodate for students who appeared to have mastered all items in a category by the end of tne year with no apparent room for growth. Instead of six areas (two were previously considered optional), the new instrument now contains seven: (1) language skills, (2) numerical concepts, (3) small motor skills, (4) social development, (5) art and music, (6) large motor skills, and (7) personal welfare. Ratings for each student were recorded in the Fall (October) and again in the Spring (May) using five categories: 0 = Not introduced, 1 = Introduced/being taught, 2 = still needs help, 3 = Adequate/needs occasional practice, and 4 = Complete mastery. Ratings of students were processed and tabulated electronically for Fall and Spring to determine the percentages of students who demonstrated the varying degrees of mastery of the skills at each time of the year.

It should be noted that the ratings were made subjectively by the teachers who took into account their total experiences with the students up to the time the ratings were made. Although the ratings were subjective, they were expected to be much more valid than a measure taken during an arranged testing session. The rating of each skill was based on the amount of attention the teacher felt needed be given to the student; thus, the instrument is useful as an aid to instruction.

Tables 3 through 9 show the percents of students who demonstrate complete mastery (ratings of "4") of each item of the 7 content areas at each time of the year. Differences in the Fall and Spring percentages indicate the achievements of the students during the year. The percentages are based on students with matched Fall and Spring ratings; therefore, the number of students whose ratings were included is less than the number enrolled during the year at any given time.

Tabulations of ratings of "3" or "4" were combined and tabulated for each item for internal use by teachers and the evaluator particularly for examining and comparing performances with those of students in previous years. Many of the items on the Record of Goals Mastery were retained in their original form with only the rating method changed. These data are not shown in this report. Ratings of 4 (Complete Mastery) are shown for each student on the End of the Year Report Form 581-2315 (Rev 8/87) Section C. Chapter 1 Early Childhood Evaluation Form. The completed form is included at the beginning of this report.

Language Skills

As shown in Table 3, the percent of students demonstrating complete mastery of each language skill by the end of the school year ranged from 3 to 83 percent. The increase in percent of students who demonstrated complete mastery from Fall to Spring ranged from 3 to 25 percent, depending on the particular skill. The fact that not all skills were mastered by 50 percent or more of the students by the end of the year indicates that the modified instrument achieved its purpose of showing where there was room for growth.

The most frequently achieved skills were identifying common objects, e.g., body parts, common animals, and describing objects according to colors and locations. These skills are also ones which are more commonly reinforced at home or outside of school. Mastery of language skills more characteristically associated with school, e.g., reciting rhyming combinations, giving answers to questions about a story, and writing own names was demonstrated less frequently. It is interesting to note that a much larger number demonstrated complete mastery of writing their own names than in previous years. Last year the evaluation indicated that being able to write one's own name is a kind of personal triumph for most students at this age, and the practice should be encouraged. This is a reflection of what may be considered developmentally appropriate learning. Across the language skills, in nearly all instances, the number completely mastering each skill was larger than last year.

TABLE 3

Language Skills

N = 113

LANGUAGE SKILLS	Percent Complete Mastery Fall	Spring	% Gain
Describes objects according to their characteristics:			
Colors:			
(red, yellow, blue, green, orange)	6	81	75
(purple, brown, black, pink, gray)	5	73	68
Location:			
(stove, bed, toilet, refrigerator, bathtub)	9	83	74
Uses complete sentences in talking	6	61	56
Identifies common objects:			
Body parts (mouth, ear, cheek, arm, wrist, leg, ankle)	3	68	65
Common animals (rabbit, dog, cat, bird, squirrel)	5	77	72
Farm animals (horse, chicken, cow, goat, sheep pig, duck)	4	57	53
Zoo animals (lion, tiger, monkey, elephant, seal, bear, giraffe, kangaroo, penguin)	1	38	37
Listens with increasing attention span: (tolerates longer or more complex stories presented by the teacher as the year progresses)	0	58	58
Expresses self freely and clearly: (speaks to teacher and others when needed, speaks intelligibly and audibly)	0	56	56
Demonstrates understanding of stories by giving answers to questions	0	28	28
Demonstrates aural language by repeating or rephrasing directions	0	26	26
Orally identifies four simple rhyming combinations	0	3	3
Understands and uses simple prepositional relationships: (places objects in front of, behind, beside, under, around, inside, outside, on)	7	78	71
Identifies five common letters of the alphabet	1	54	53
Writes/prints own name	4	41	37

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Numerical Concepts

Table 4 shows the percent of students demonstrating complete mastery of numerical concepts. The percent showing mastery at the end of the school year ranged from 5 to 72, percentages that were noticeably higher than last year. The increase in percent who demonstrated complete mastery from Fall to Spring ranged from 5 to 70, depending on the particular skill. Apparently, complete mastery of the concept of one more and one less is difficult to achieve. The numerical concepts shown here are largely those achieved at school and not practiced as much at home or outside of school so it is not surprising that so few demonstrated any degree of skill before entering school and acquired most their skills at school.

Except for the change in the method of rating achievement, modifications of numerical concepts items were minor. The new rating scale accomplished the purpose of showing where more room for growth was possible. Opportunities for children to experience placing objects in order according to size, the concept of exactly one more or one less and the concept of sets are infrequent and, perhaps, account for the smaller percentages of students completely mastering these concepts.

TABLE 4

Numerical Concepts

N = 113

NUMERICAL CONCEPTS	Percent Complete Mastery Fall	Spring	% Gain
Recognizes and identifies simple shapes:			
(points to and names: circle, square, triangle)	2	72	70
(points to and names: rectangle, diamond)	1	51	50
Distinguisnes comparative sizes and quantities:			
(points to those objects that are identical in size within a group)	1	58	57
(points to the smallest and largest of six objects)	1	72	71
(points to which group has more and which has less of two groups of objects, e.g., 3 pencils and 6 pencils)	1	54	53
(places in order six objects of different size)	0	5	5
Associates numerals with the quantities 1-5:			
(states orally the appropriate number when shown from one to ten objects)	0	64	64
(associates the oral numerals [zero to five] with the appropriate numerical symbol [0 to 5])	0	48	48
Begins to understand the concept of sets:			
(points to a set of objects that are placed among non-set objects)	0	29	29
Understands the concept of one more and one less:			
(points to which group contains one more object and which contains one less)	0	5	5
Understands the concept of zero:			
(states orally when zero objects of a given type are presented)	0	42	42

Small Motor Skills

Achievements of small motor skills are shown in Table 5. On the earlier achievement form the children appeared to master most of these skills quite easily; however, the replacement of one skill and addition of another along with changing the form of rating achievement accomplished the purpose of showing where there was more room for growth. The small motor skills mastered most frequently are those students use more often in regular classroom activities. Eye-hand coordination in copying figures and pouring from a pitcher is not used to the extent necessary to master these skills; therefore, the number of students completely mastering these two complex skills is small.

It is somewhat surprising to find so few students, in fact none, who demonstrated complete mastery of using opposing thumb. Apparently, children at this early age still have the propensity to grasp with their whole hand or fingers and palm. The fact that ratings of these skills, which are more influenced by physical development, were larger than are previous years, could indicate more liberal rating by the teachers than differences in student achievement.

TABLE 5

Small Motor Skills

N = 113

SMALL MOTOR SKILLS	Percent Complete Mastery		
	Fall	Spring	% Gain
Pinches off bits, squeezes, pounds, pats and pushes clay or dough	1	90	89
String beads	1	88	87
Manipulates puzzles	1	61	60
Holds crayons, paint brushes and pencils	0	60	60
Uses scissors correctly	0	47	47
Uses opposing thumb	0	0	0
Copy (not trace) forms (circle, square, triangle, plus)	0	17	17
Pours from pitcher to container without spilling	0	10	10

Social Development

Achievement of social skills are shown in Table 6. In previous years, the percentages of students demonstrating mastery of these skills was fairly high in the the Fall and over 90 percent in the Spring indicating there was very little room for growth. To provide room for growth, several items were revised and some new ones were added. With the new form, the percentages of students rated as demonstrating complete mastery of the skills at both times of the year were considerably smaller. Where most students were previously rated as demonstrating mastery of most skills in the spring, 50 percent or less were now rated as having complete mastery. Tabulations also showed about 5 to 10 percent were rated as still needing help with the skills. Perhaps the change in the rating method drew more attention to the inadequacies of students in social development--that some degree of guidance was still necessary for most students.

Gains in mastery of the skills were quite uniform across the items. Demonstrating responsibility and being able to control aggressive behavior appear to be more difficult to overcome.

TABLE 6

Social Development

N = 113

SOCIAL DEVELOPMENT	Percent Complete Mastery Fall	Spring	% Gain
Involves self in a variety of constructive activities	1	42	41
Shares classroom material with other children	0	30	30
Helpful and courteous to others (e.g., not reckless, bossy, or disrespectful)	0	40	40
Uses classroom materials in the appropriate fashion	0	45	45
Able to play or work in small groups of peers (e.g., does not fight, dictate, or withdraw from or submit to others)	0	29	29
Communicates with adults (e.g., does not demand excessive attention, ignore other children in favor of adults, reject adults and/or act in hostile fashion toward adults)	0	51	51
Initiates interaction with others	4	46	42
Maintains appropriate voice level	0	46	46
Avoids expressions of frustration and intolerance	0	22	22
Respects classroom rules and routines (e.g., no running, stays in line)	0	29	29
Able to encounter new situations in the classroom without fear (e.g., the student does not withdraw or lag back)	0	39	39
Demonstrates responsibility (self-discipline and motivated, safety for self and others, stays on task, solves own problems)	0	20	20

Art and Music

Achievements in art and music are shown in Table 7. Art and music was an area previously identified as being optional for use by teachers for evaluation purposes. Over the years, teachers routinely rated student performances on these skills and taught them like all others, so identification as an option was dropped.

Except for occasionally drawing pictures, most children do not participate in the activities associated with the particular art and music skills outside of school. The low percentages of students demonstrating complete mastery of these skills in the Fall, perhaps indicates this lack of experience children have with these specific skills. Art and music skills are practiced quite frequently in the classrooms, and the children seem to enjoy the experiences. Again, many of those skills are observed in free play situations, and the students may perceive their play behavior as being appropriate during the structured art and music activities. Therefore, especially during music, a few children tend to "act up" and not follow directions.

As with the ratings of other areas, the ratings for art and music show room for growth. Skills for which the ratings indicate many students still need help are in the music area. In these kinds of activities, students may choose not to participate with full attention and their inappropriate performances can and do occasionally go quite unnoticed. It is generally acknowledged that the achievement of these skills is, perhaps, not as critical as achieving other skills, so the lack of attention is overlooked.

TABLE 7

Art and Music

N = 113

ART AND MUSIC	Percent Complete Mastery Fall	Spring	% Gain
Participates willingly in art activities	5	82	77
Handles art media and tools appropriately	1	67	66
Participates in dance and circle games	4	65	61
Demonstrates differences between fast and slow music	1	43	42
Sings words and follows along in time to songs frequently sung in class	0	57	57
Distinguishes between loud and soft sounds	1	40	39

Large Motor Skills

Student achievements in large motor skills are shown in Table 8. Like art and music, this area was previously considered optional, but the identification was dropped. Again, some items were modified, deleted, or added to show where there was room for growth and to reflect the current curriculum better.

Physical maturity plays a major role in the development of these skills, and in previous years the ratings of about half the students indicated they had completely mastered these skills before they enrolled in the Fall. Perhaps, a restatement that complete mastery meant that further instruction on the skill appeared unnecessary, reminded teachers to pay closer attention to what each student was doing and resulted in fewer student ratings of complete mastery. For example, students may hop or skip but they may not do so using both feet in the prescribed manner and do so consistently when instructed.

TABLE 8

Large Motor Skills

N = 113

LARGE MOTOR SKILLS	Percent Complete Mastery		
	Fall	Spring	% Gain
Walk on 4" board	0	66	66
Stand and run on tiptoes	1	71	70
Run fast without fear of stumbling	4	84	80
Hop in place with each foot	1	44	43
Go up and down stairs using alternate feet	10	82	72
Do a standing, feet together broad jump	0	6	6
Stand on each foot for eight seconds	0	15	15
Gallop	4	23	19
Skip on one foot with alternate foot stepping	1	8	7
Jump from a heignt of 18 inches	3	57	54
Throw a ball with preferred hand	0	8	8
Catch a tossed ball	0	5	5

Personal Welfare

Table 9 shows the achievements of students in personal welfare, the area that was added when the form was revised. Observations of classrooms found these skills being addressed essentially every day and some skills several times a day by all teachers. These skills are useful, even essential, to the health and welfare of children, so they have been included for evaluation purposes.

Like the other areas, the percentages of students demonstrating complete mastery of each of these skills ranged considerably across skills. It should be noted that two skills involving eating are "not applicable" because snacks

have been discontinued. Learning the months, days of the week, date, and year appeared to be the most difficult to master, yet these time references, especially days of the week, are used quite often in talking to children. At the preschool age, mastery of this skill is not considered as important as mastery of taking care of coats, washing hands, and using bathroom facilities all of which were completely mastered by fair numbers of students.

TABLE 9

Personal Welfare

N = 113

	Percent Complete Mastery		
PERSONAL WELFARE	Fall	Spring	% Gain
Use zippers and buttons	0	44	44
Put on, take off, hang up coat	1	79	78
Wash hands	0	81	81
Use bathroom facilities	24	72	48
Use knife, fork, spoon*	NA	NA	NA
Open milk carton*	NA	NA	NA
Clean up skills	0	10	10
Avoids littering	0	5	5
Uses care and caution to avoid damage or injury	1	22	21
Knows months, days of week, date, year	0	0	0

*Snacks were not served, so these goals are not applicable.

Achievements of the students in six of the seven skill areas in tables 3 to 9 were reviewed in relation to those of students in previous years. When mastery ratings of 3 = Adequate/needs occasional practice and 4 = Complete mastery were combined (data not shown), the results of student performances

over the last few years were quite similar. However, comparing the ratings of complete mastery over the last three years where the same rating scale was used, the results for 1988-89 showed more students were rated as having completely mastered each skill.

OBSERVATIONS AND COMMENTS

In the 1987-88 evaluation report of the Chapter 1 preschool program, results of several follow-up studies of former program students in kindergarten and in grades three and four were reviewed. The review indicated that despite surprising similarities in classroom materials, schedules, kinds of activities, and instructional strategies taught by different teachers, the results were inconsistent from year to year. The inconsistent findings led to speculations and some observation to try to determine probable reasons for the inconsistencies. Observations of former preschool students in kindergarten classes only added to the uncertainty of finding reasonable answers. (Note: The 100, or so, former preschool students were found to be enrolled in as many as 15 different schools.)

The research necessary to make the proper connection between preschool experiences and later school performances, and to make a worthwhile contribution in this area, was deemed beyond the scope of current evaluation resources of the Portland Public Schools Chapter 1 preschool program. As an alternative, effort over the last few years has been devoted to guiding instruction, making it more consistent, and to monitor for noticeable changes in performances that the instruction might have on student achievement as it has been measured over the years. The instruction being observed now in the preschool classrooms appears to include more developmentally appropriate practices than the skill based instruction that was observed in earlier years.

Student outcomes of the instruction that is being encouraged may be described as behavior that is both socially acceptable and educationally worthwhile, an expression used by the evaluator of this preschool program in another Chapter 1 research study (Yagi & Kushman, 1988). For example, during one observation

small groups of students were asked to "work on their journals." They were seated at a table and given a blank piece of paper and crayons. The activity was supervised by the aide seated at the end of the table.

After a duration of time that seemed to exceed the attention span of most students on an assigned task, they began to finish. One by one they took their piece to the aide who put her arm around the youngster and stated simply, "Tell me about it." In various ways, she encouraged each student to talk about his/her piece. Time was not a factor as one student continued to work feverishly and productively even while another group was processed. Perseverance in completing a learning task to the students' own satisfaction is certainly educationally worthwhile, and it should be encouraged as it was here. Simultaneously, the behavior of the students doing the assignment was very socially acceptable as it was with all students during nearly all of the classroom observation period.

Developmentally appropriate practices in the preschool program are not carried out as they appear to be prescribed by NAEYC; rather, they are carried out within the structure established several years ago. Unlike Piagetian and Montessori classes where the practices are more apparent, there is a predetermined schedule, prescribed activities, and objectives with various materials and instruction provided by the teacher. The distinction between skill based and developmentally appropriate instruction is more difficult to observe. Except for skills that are imminently useful for the personal well being of students at school, e.g., washing hands after bathroom use, putting on coats, the emphasis is not on complete mastery of the skills, but on teaching skills at a level appropriate for the given student.

Instructional practices observed and being encouraged by the program director and consultants in the Chapter 1 preschool classrooms do not appear to be inconsistent with those described in the literature as being developmentally appropriate; therefore, the effort will be continued. Consultation with PPS early childhood specialists will be continued to reinforce and strengthen current practices.

The question of performances on academic skills is important at least at some point in each student's education. Data compiled so far tend to indicate that achievement has been at least equal to that of students in previous years.

SUMMARY AND CONCLUSIONS

The main source of information for the evaluation of the Chapter 1 Early Childhood Education Program is student achievement of specific skills. Data accumulated over the last twelve years showed steady increases in the proportions of students mastering the skills over the first five to seven years. Smaller increases were noted over the last five years as achievements appeared to reach maximums. Measures of achievement were, and still are, made by subjective teacher ratings which, of course, are subject to teacher biases in using the rating scale. When the data from the three to eight teachers involved each year are taken over two or three years at a time, the effect of the biases is most likely reduced to a tolerable level.

Student achievement for the 1988-89 school year was as high or higher than it was in previous years in all categories except in large motor skills. This is the first year that achievement levels were noticeably lower in any category. Children will achieve these motor skills as they become more physically mature, so the concern is not great. The data indicate that apparent changes in instructional practices have not affected the achievement of specific skills appreciably.

Although the data collected and accumulated for the evaluation of the preschool program has remained the same over the years, the day to day use of achievement information has been changed. In the earlier years, the emphasis was on the mastery of specific skills, i.e., instruction was arranged to help each student master the skills. Indications of mastery and non-mastery were sufficient. Currently, individual student records are used to indicate general levels of development in order to determine instructional areas and the kind of instruction to be provided; therefore, information on the extent of mastery is more useful. With the emphasis on instruction, future evaluation will include more focussed observations on this aspect.

References

Bredekamp, S. (Ed.). (1987). Developmentally appropriate practice in early childhood programs serving children from birth through age 8 (Expanded ed.). Washington, DC: National Association for the Education of Young Children.

Yagi, K. & Kushman, J. W. (1988). Longitudinal study of students in and out of a Chapter 1 program over a three-year period. Portland, OR: Portland Public Schools, Research and Evaluation Department.

APPENDIX A

PRESCHOOL STUDENT ACHIEVEMENT FORM

Student's Name _____ Teacher's Name _____

Student's Birth Date _____

CHAPTER I EARLY CHILDHOOD EDUCATION

Achievement Rating Scale:

0 = Not introduced
1 = Introduced/being taught
2 = Still needs help
3 = Adequate/needs occasional practice
4 = Complete mastery

	Achievement Ratings	
	Fall	Spring
Language Skills		
Describes objects according to characteristics		
Colors: (red, yellow, blue, green, orange)		
(purple, brown, black, pink, gray)		
Location: (stove, bed, toilet, refrigerator, bathtub)		
Uses complete sentences in talking		
Identifies common objects:		
Body parts (mouth, ear, cheek, arm, wrist, leg, ankle)		
Common animals (rabbit, dog, cat, bird, squirrel)		
Farm animals (horse, chicken, cow, goat, sheep, pig, duck)		
Zoo animals (lion, tiger, monkey, elephant, seal, bear, giraffe, kangaroo, penguin)		
Listens with increasing attention span: (tolerates longer or more complex stories presented by the teacher as the year progresses)		
Expresses self freely and clearly: (speaks to teacher and others when needed, speaks intelligibly and audibly)		
Demonstrates understanding of stories by giving answers to questions		
Demonstrates aural language by repeating or rephrasing directions		
Orally identifies four simple rhyming combinations		
Understands and uses simple prepositional relationships: (places objects in front of, behind, beside, under, around, inside, outside, on)		
Identifies five common letters of the alphabet		
Writes/prints own name		
Numerical Concepts		
Recognizes and identifies simple shapes: (points to and names: circle, square, triangle)		
(points to and names: rectangle, diamond)		
Distinguishes comparative sizes and quantities:		
(points to those objects that are identical in size within a group)		
(points to the smallest and largest of six objects)		
(points to which group has more and which has less of two groups of objects — e.g., 3 pencils and 6 pencils		
(places in order six objects of different size)		
Associates numerals with the quantities 1 to 5:		
(states orally the appropriate number when shown from one to ten objects)		
(associates the oral numerals (zero to five) with the appropriate numerical symbol (0 to 5)		
Begins to understand the concept of sets: (points to a set of objects that are placed among non-set objects).		
Understands the concept of one more and one less: (points to which group contains one more object and which contains one less).		
Understands the concept of zero: (states orally when zero objects of a given type are presented)		
Small Motor Skills		
Pinches off bits, squeezes, pounds, pats and pushes clay or dough		
Strings beads		
Manipulates puzzles		
Holds crayons, paint brushes and pencils		
Uses scissors correctly		
Uses opposing thumb		
Copy (not trace) forms ○ □ △ +		
Pours from pitcher to container without spilling		

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	Achievement Ratings	
	Fall	Spring
Social Development		
Involves self in a variety of constructive activities		
Shares classroom material with other children		
Helpful and courteous to others (e.g., not wreckless, bossy, or disrespectful)		
Uses classroom materials in the appropriate fashion		
Able to play or work in small groups of peers (e.g., does not fight, dictate, withdraw from or submit to others)		
Communicates with adults (e.g., does not demand excessive attention, ignore other children in favor of adults, reject adults and/or act in a hostile fashion toward adults)		
Initiates interaction with others		
Maintains appropriate voice level		
Avoids expressions of frustration and intolerance		
Respects classroom rules and routines (e.g., no running, stays in line)		
Able to encounter new situations in the classroom without fear (e.g., the student does not withdraw or lag back)		
Demonstrates responsibility (self-discipline and motivated, safety for self and others stays on task, solves own problems)		
Art and Music		
Participates willingly in art activities		
Handles art media and tools appropriately		
Participates in dance and circle games		
Demonstates differences between fast and slow music		
Sings words and follows along in time to songs frequently sung in class		
Distinguishes between loud and soft sounds		
Large Motor Skills		
Walk on 4" board		
Stand and run on tiptoes		
Run fast without fear of stumbling		
Hop in place on each foot		
Go up and down stairs using alternate feet		
Do a standing, feet together broad jump		
Stand on each foot for eight seconds		
Gallop		
Skip on one foot with alternate foot stepping		
Jump from a height of 18 inches		
Throw a ball with preferred hand		
Catch a tossed ball		
Personal Welfare		
Use zippers and buttons		
Put on, take off, hang up coat		
Wash hands		
Use bathroom facilities		
Use knife, fork, spoon		
Open milk carton		
Clean up skills		
Avoids littering		
Uses care and caution to avoid damage or injury		
Knows months, days of week, date, year		